non-small-cell lung cancer (NSCLC) using gefitinib or docetaxel. Probability distributions for adverse events and life expectancy were obtained from the INTEREST study. We used a docetaxel chemotherapy cost-study at ISSSTE and for gefitinib we used the drug's institutional price. Health state utility values for calculating QALYs (Quality Adjusted Life Years) were derived from a recently published study done with UK patients. A 3% annual discount rate was applied on a monthly basis to all costs. Finally, a probabilistic sensitivity analysis was made varying the cost of chemotherapy. The model was run 25 times with 500 patients in each arm. Results are presented in US dollars with an exchange rate of 13.5 MXN pesos for 1 US dollar. **RESULTS:** There was no clinical difference in life expectancy between gefitinib (10.25 months) and docetaxel (10.14 months). Average QALY for gefitinib cohort was 0.487 (95% CI, 0.437 – 0.537) and for chemotherapy cohort was 0.438 (95% CI, 0.388 – 0.488). The average cost per patient treated with gefitinib was $12,103 (95% CI, $11,916 – $12,290) and with docetaxel was $20,076 (95% CI, $19,866 – $20,286). The acceptability curve shows a 100% dominace of gefitinib over docetaxel, after a chemotherapy price of $1,333. **CONCLUSIONS:** Gefitinib is an alternative therapy for second line treatment of NSCLC that dominates docetaxel chemotherapy, in terms of quality of life related to reduced presence of adverse events, at a lesser cost to the institution.

PCN73

USING SHORT-TERM RESPONSE TO PREDICT LONG-TERM OUTCOMES IN PATIENTS WITH IMATINIB-RESISTENT OR IMATINIB-INTOLERANT CHRONIC MYELOID LEUKAEMIA

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OBJECTIVES: Chronic myelogenous leukaemia (CML) is a progressive disease associated with a significant burden on both the patient and the health care provider. Although durable response from imatinib is achievable for many patients, some develop resistance or intolerance. In these patients, other tyrosine kinase inhibitors (TKIs), such as dasatinib and nilotinib are treatment options. This study uses outputs from recent clinical trials evaluating TKIs to predict the long-term economic and cost outcomes associated with different levels of best response. **METHODS:** A Markov model was developed to estimate the costs and health outcomes associated with chronic, accelerated and blast phase CML. Short-term response was defined as 'no response' (NR), 'complete haematological response' (CHR), partial cytogenetic response (PCR) and complete cytogenetic response (CCR). Resource use and quality-adjusted life year (QALY) scores were stratified according to the patient's current health status and response level. **RESULTS:** Patients in the chronic phase who achieve no response are estimated to experience a total of 1.50 QALYs and incur costs of ≤57,867 over their lifetime. Those who achieve CHR, PCR and CCR experience 3.47, 7.31 and 10.17 QALYs, and costs of ≤62,617, ≤66,499 and ≤67,117 respectively. In the accelerated phase, the total number of QALYs for the NR, CHR, PCR and CCR groups were 0.71, 1.70, 1.57 and 4.10 respectively. For the same groups, the lifetime costs were ≤35,273, ≤35,850, ≤35,886 and ≤51,693. In the blast phase, the QALY outcomes for the four groups were 0.18, 0.41, 0.63 and 1.46, whilst the costs were ≤13,252, ≤7,109, ≤10,993 and ≤25,501 respectively. **CONCLUSIONS:** There is a strong apparent relationship between short-term response to treatment and long-term outcomes in CML. These findings are likely to be useful in assessing the cost-effectiveness of existing treatments, whose short-term response is known, but where long-term data are currently unavailable.

PCN74

COST UTILITY OF POSACONAZOLE VERSUS FLUCONAZOLE/ ITRACONAZOLE THERAPY IN THE PROPHYLAXIS AGAINST INVASIVE FUNGAL INFECTIONS AMONG HIGH-RISK NEUTROPENIC PATIENTS IN MEXICO

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OBJECTIVES: To estimate the cost effectiveness of Posaconazole versus fluconazole/ itraconazole therapy in the prophylaxis against invasive fungal Infections among high-risk neutropenic patients in Mexico. **METHODS:** A previously validated Markov model was used to compare the projected lifetime costs and effects of two theoretical groups of patients, one receiving Posaconazol and the other receiving fluconazole/itraconazole. The model estimates total costs, numbers of IFIs, and QALY per patient in each prophylaxis group. The model was extended with one-month Markov cycles in which mortality risk is specific to the underlying disease. Data on the probabilities of IFI were obtained from Study Protocol PO1899. Drug costs were taken from average wholesale drug reports for 2008. Cost and health effects were discounted at 5%. The analysis was conducted from the Mexican health care perspective using 2008 unit cost prices. **RESULTS:** Our model projects an accumulated cost to the Mexican health care system per patient receiving the Posaconazol regimen of US$7463 compared to US$5634 for the fluconazole/itraconazole regimen. This results in an incremental cost of –(US$1829) per patient. The accumulated discounted effect is 3.13 life years or 2.25 quality adjusted life years (QALYs) per patient receiving Posaconazol, compared to 3.13 life years or 2.13 QALYs per patient receiving fluconazole/itraconazol. This translates into an incremental effect of posaconazole over fluconazole/itraconazole of 0.17 life years gained (LYG) or 0.12 QALYs gained. The corresponding incremental cost effectiveness ratio (iCERs) is -(US$15,125) per QALY. Probabilistic sensitivity analysis tested numerous assumptions about the model cost and efficacy parameters and found that the results were robust to most changes. **CONCLUSIONS:** The use of temozolomide in place of fluconazole/itraconazole for the prophylaxis against invasive fungal Infections among high-risk neutropenic patients is likely to be cost saving. These conclusions are supported by the use of conservative assumptions and sensitivity analyses.

PCN75

THE IMPACT OF NEUTROPENIC COMPLICATIONS ON SHORT-TERM DISABILITY IN PATIENTS WITH CANCER RECEIVING CHEMOTHERAPY

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OBJECTIVES: Patients receiving myelosuppressive chemotherapy are at risk for chemotherapy-induced neutropenic complications (CINC). The study objective was to examine the impact of CINC, defined as neutropenia with fever or infection, on short-term disability (STD) among cancer patients receiving chemotherapy. **METHODS:** Patients with cancer undergoing chemotherapy were extracted from Thomson Reuters MarketScan® Commercial Database and Health and Productivity Management Database. Patients were required to have at least 6 months continuous enrollment before the index date (first chemotherapy claim) and at least 30 days continuous enrollment post-index date, full-time employment and eligibility for STD. Patients with ICD-9 codes for neutropenia and fever or infection and that had evidence of chemotherapy within 30 days prior were defined as having CINC. Propensity score (PS) matching was conducted for "CINC" and "non-CINC" patients based on demographic and clinical characteristics, including chemotherapy class and use of highly myelosuppressive chemotherapeutic agents. Subsequent multivariate regressions were conducted on PS-matched cohorts to estimate the marginal impact of CINC: an Ordinary Least Squares Model on STD days, a generalized linear model on indirect cost associated with STD, and a logistic regression model on whether a patient used any STD days during a month. **RESULTS:** A total of 280 CINC and 280 non-CINC patients were PS-matched. Compared with matched non-CINC patients, CINC patients on average experienced 0.9 more STD day (3.2 vs. 2.3, p = 0.046) which led to $156 more in indirect costs ($549 vs. $394, p = 0.050) per month. After multivariate adjustment, CINC patients were 35% (p = 0.121) more likely to experience at least one STD day, experienced 1.0 more STD day (p = 0.029), and incurred $200 more in indirect cost (p = 0.016) per month. **CONCLUSIONS:** Patients with CINC experience significantly greater STD days than patients with no neutropenic complications from cancer chemotherapy. Efforts that may prevent CINC can potentially have a beneficial impact on work absenteeism.

PCN76

REVISITING CHERNOBYL: THE LONG-RUN IMPACT OF THE NUCLEAR ACCIDENT ON LABOR MARKET OUTCOMES

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OBJECTIVES: The accident at the Chernobyl nuclear power plant in 1986 released an enormous amount of radioactive materials which spread over the territories of Ukraine, Belarus, Russia and other European countries. The damage caused to the environment, economy and, most importantly, to human health has been challenging to estimate. In fact, there is no scientific agreement on the severity of the Chernobyl aftermath. The purpose of our paper is to investigate the long-run impact of the tragedy on the labor market outcomes of the Ukrainian population. **METHODS:** Specifically, using data from 2001 household survey and a self-reported measure of well-being, we estimate the impact of the Chernobyl accident on individual earnings. In addition, we identify a substantial gender wage gap existing in the Ukrainian labor markets. We use the Oaxaca decomposition technique to examine the wage gap in more detail. **RESULTS:** We find that those individuals whose health has suffered as a result of the accident receive on average 5% lower wages, after controlling for other characteristics. **CONCLUSIONS:** We find that a large portion of the wage gap is "unexplained" and may be attributed to discrimination against women; in addition, the health effects of the Chernobyl accident explain a significant portion of the gender wage inequality.

PCN77

HEALTH CARE RESOURCE UTILIZATION ASSOCIATED WITH ESCALATING IMATINIB VERSUS SWITCHING TO DASATINIB IN PATIENTS WITH CHRONIC MYELEGENOUS LEUKEMIA

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OBJECTIVES: After initial therapy with imatinib, chronic myelogenous leukemia (CML) patients who do not completely respond may require dose escalation or switching to another BCR/ABL kinase inhibitor to achieve the desired response. This study compared health care resource utilization associated with either escalation of imatinib dose or switching to dasatinib. **METHODS:** Two large administrative claims databases were combined (MarketScan and Ingenix Impact, January 1999–March 2008) to identify patients diagnosed with CML (ICD-9 code: 205.1). Patients initiated with imatinib who were continuously enrolled 6 months prior to and at least one month following their first dose increase or switch to dasatinib were selected. Patients who switched to dasatinib before reaching imatinib 800 mg/day (switchers) and the non-

switchers who increased imatinib dose to >400 mg/day (dose escalators) were then followed until treatment discontinuation or end of eligibility. Negative binomial regression models were used to compare resource utilization associated with dose escalators vs. switchers, controlling for demographics, baseline imatinib treatment patterns, therapies, adverse events, and resource utilization. Cox regression models were used to study hospice services and stem cell transplants during the follow-up period among patients without such prior event. **RESULTS:** Among CML patients who initiated on imatinib, 474 dose escalators and 175 dasatinib switchers were identified. Compared to dose escalators, switchers had significantly more frequent inpatient visits (incidence rate ratio [IRR] = 3.37, p = .005), emergency room visits (IRR = 1.80, p = .018), and outpatient visits (IRR 1.38 p < .001). Although low in absolute rates, switchers had substantially higher risks of hospice use (hazard ratio [HR] = 14.55, p = .066) and stem cell transplant (HR = 8.71, p = 0.006), indicating deteriorated clinical outcomes. **CONCLUSIONS:** Imatinib-treated CML patients who switched to dasatinib are associated with significantly more intensive resource utilization and adverse clinical outcomes than those who escalated to higher doses. Further studies are warranted to examine the causality of the differences in resource utilization and clinical outcomes.

CANCER – Patient-Reported Outcomes Studies

PCN78

PREFERENCES IN MULTIPLE MYELOMA TREATMENT – WHAT DO PHYSICIANS THINK?

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OBJECTIVES: In the present study, physicians' beliefs about patients' preferences regarding the treatment of MM were explored in a direct assessment and a Discrete Choice Experiment (DCE) and were compared to the previously explored patients' preferences. **METHODS:** In a preceding DCE with MM-patients, relevant attributes of an ideal MM-treatment were collected by reviewing the literature and by conducting a qualitative study with four focus groups. The attributes were analyzed in a subsequent quantitative study using both a direct measurement (16 items on a 5-point Likert-scale) and a DCE (8 pairs with 8 characteristics). In the present study, 243 physicians answered (76% male, 62% haematology specialists, 70% with >10 MM-patients in the last 12 months) the identical questionnaire. **RESULTS:** Physicians rated physical quality of life (specified as "reduced mobility or good mobility"), rare side effects and effectiveness aspects (duration of effect, maximal prolonged life expectancy and effectiveness) as most important attributes from the patients' perspective. While the direct assessment gathers a range of important aspects, weighing particular relevant treatment attributes in a DCE is important. Physicians ranked prolonged life expectancy as most relative important and significantly more important than all other treatment attributes. Further treatment options were second most important and significant compared to breaks in therapy and physical quality of life, whereas the patients ordered these two top priorities reversely. **CONCLUSIONS:** Over a broad range of treatment attributes the physicians' perceptions of preferences were very close to those of MM patients. However in the DCE, after weighing the attributes patients assigned a higher relative importance to further treatment options and "Not always think of the disease", but less to prolonged life expectancy and self-application.

PCN79

HEALTH RELATED QUALITY OF LIFE IN THE DIFFERENT STAGES OF NON-HODGKIN LYMPHOMA IN PATIENTS ATTENDED IN THE SOCIAL SECURITY MEXICAN INSTITUTE

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OBJECTIVES: The aim of this study was to describe health related quality of life in different stages of non-hodgkin lymphoma in patients attended in a tertiary referral center at the Social Security Mexican Institute. **METHODS:** Were included outpatients with non-hodgkin lymphoma, attended in a tertiary referral center since July to August 2008, with the following inclusion criteria: older than 16 years, non-hodgkin lymphoma histological diagnosis, were included through informed consent; were excluded patients with second malignant neoplasm or incomplete information. To calculate health related quality of life EORTC QLQ-C30 score validated Spanish version to México was used; were evaluated global health status, functional scales (physical, role, emotional, cognitive, social) and symptom scales (fatigue, nausea and vomiting, pain, dyspnea, insomnia, appetite loss, constipation, diarrhea, financial difficulties) in scale since 0 to 100 (0 = death, 100 = perfect health). Were calculated means and range for EORTC QLQ-C30 score items; statistical differences were calculated through ANOVA test, p value <0.05 was considered significant. **RESULTS:** We studied 14 non-hodgkin lymphoma patients, mean age group was 60 ± 12.3 years old, 57% were women, 78% were married, and 23% had an educational level of incomplete elementary school. The stating of this group was distributed as follow: I-7%, II-14%, III-7% and NC (non classified)-72% (without complete histopathology report at interview moment). Health related quality of life mean for all items was: I:88.2, II:87.6, III:48.11, according clinical stage in NC group was 75.1; p = 0.23. The assumptions associated with a decreased health related quality of life associated with disease progression were emotional function (I-83, II-63, III-66; p = 0.05), cognitive function (I-10, II-83, III-50, IV-56; p = 0.06). **CONCLUSIONS:** We observed a decreased health related quality of life associated with a late clinical stage in emotional and cognitive function.

PCN80

HEALTH RELATED QUALITY OF LIFE IN THE DIFFERENT STAGES OF BREAST CANCER IN PATIENTS ATTENDED IN THE SOCIAL SECURITY MEXICAN INSTITUTE

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OBJECTIVES: The aim of this study was to describe health related quality of life in different stages of breast cancer in patients attended in a tertiary referral center at the Social Security Mexican Institute. **METHODS:** Were included outpatients with breast cancer, attended in a tertiary referral center since July to August 2008, with the following inclusion criteria: older than 16 years, breast cancer histological diagnosis, accepted were included through informed consent, were excluded patients with second malignant neoplasm or incomplete information. To calculate health related quality of life EORTC QLQ-C30 score validated Spanish version to México was used; were evaluated global health status, functional scales (physical, role, emotional, cognitive, social) and symptom scales (fatigue, nausea and vomiting, pain, dyspnea, insomnia, appetite loss, constipation, diarrhea, financial difficulties) in scale since 0 to 100 (0 = death, 100 = perfect health). Were calculated means and range for EORTC QLQ-C30 score items; statistical differences were calculated through ANOVA test, p value <0.05 was considered significant. **RESULTS:** We studied 148 breast cancer patients, mean age 51.68 ± 10.32 years old, 69% were married, and 20% had an educational level of preparatory school. The stating of this group was distributed according clinical stage as follow: I-6%, II-23%, III-16%, IV-7% without stage at interview moment (NC) 47% (first visit for diagnosis). Health related quality of life mean for all items was: I:85.7 ± 7, II:75.36 ± 15, III:74.47 ± 17 and IV:61.05 ± 22, NC:76 ± 18 (p = 0.07). The assumptions associated with a decreased health related quality of life in relation to late clinical stage were physical function (I-88, II-79, III-75, IV-56; p = 0.003), role function (I-90, II-80, III-71, IV-43; p = 0.001), weakness (I-83, II-66, III-62, IV-44; p = 0.004) and pain (I-85, II-70, III-65, IV-50; p = 0.05). **CONCLUSIONS:** We observed decreased health related quality of life in late clinical stage. An important factor with impact in quality life could be adverse events related with adjuvant treatments.

PCN81

HEALTH RELATED QUALITY OF LIFE IN THE DIFFERENT STAGES OF COLORECTAL CANCER IN PATIENTS ATTENDED IN THE SOCIAL SECURITY MEXICAN INSTITUTE

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OBJECTIVES: The aim of this study was to describe health related quality of life in different stages of colorectal cancer in patients attended in a tertiary referral center at the Social Security Mexican Institute. **METHODS:** Were included outpatients with colorectal cancer, attended in a tertiary referral center since July to August 2008, with the following inclusion criteria: older than 16 years, colorectal cancer histological diagnosis, accepted were included through informed consent; were excluded patients with second malignant neoplasm or incomplete information. To calculate health related quality of life EORTC QLQ-C30 score validated Spanish version to México was used; were evaluated global health status, functional scales (physical, role, emotional, cognitive, social) and symptom scales (fatigue, nausea and vomiting, pain, dyspnea, insomnia, appetite loss, constipation, diarrhea, financial difficulties) in scale since 0 to 100 (0 = death, 100 = perfect health). Were calculated means and range for EORTC QLQ-C30 score items; statistical differences were calculated through ANOVA test, p value <0.05 was considered significant. **RESULTS:** We studied 31 colorectal cancer patients, mean age patients was 55 ± 11.5 years old, 54% were women, 71% were married, and 38% had secondary school. The stating of this group was distributed as follow: II-4 (13%), III-2 (6%) IV-7 (23%) and NC (non-classified)-18 (58%) (without complete histopathology report). Health related quality of life mean according stage for all items was: II:57 ± 22, III:86 ± 12 and IV:66 ± 14 NC 76 ± 19 (p = 0.17) The assumptions associated with a decreased health related quality of life associated with disease progression were pain (II-20, III-75, IV-52;p = 0.02) and financial problems (II-25, III-100, IV-76;p = 0.09. **CONCLUSIONS:** We observed a decreased health related quality of life associated with late clinical stage by pain and financial problems.